

1st Claims

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Subt A²

1. A composition comprising a bead conjugated to a solid support and further conjugated to a nucleic acid.

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Subt B⁶

2. A composition of claim 1, wherein the bead is made from a material selected from the group consisting of: silica gel, glass, magnet, Wang resin, Merrifield resin, metal, plastic, cellulose, Sephadex, and Sepharose.

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3. A composition of claim 1, wherein the bead is swellable.

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4. A composition of claim 1, wherein the bead is nonswellable.

5. A composition of claim 1, wherein the bead is in the range of 1 to 100 μ m in diameter.

6. A composition of claim 1, wherein the solid support is selected from the group consisting of: beads, capillaries, plates, membranes, wafers, combs, pins, wafers, wafers with arrays of pits and nanoliter wells.

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Subt A³

7. A composition of claim 1, wherein the nucleic acid is DNA.

8. A composition of claim 1, wherein the nucleic acid is RNA.

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9. A process of making a bead conjugated to a solid support and further conjugated to a nucleic acid, comprising the steps of conjugating a bead to a nucleic acid; and conjugating a bead to a solid support.

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10. A process of claim 8, wherein the bead is functionalized.

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11. A process of claim 10, wherein the bead is functionalized with carboxy functional groups.

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12. A process of claim 10, wherein the bead is functionalized with amino functional groups.

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13. A process of claim 10, wherein the bead is conjugated to the nucleic acid prior to conjugation of the bead to the solid support.

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14. A process of claim 10, wherein the bead is conjugated to the nucleic acid after the bead is conjugated to the solid support.

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